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**IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE**

Applicant(s): KNORR et al

Serial No. : Not yet assigned:
U.S. National Phase
of PCT/DE01/02308

Filed : Herewith

For : HALOGEN LAMP

Art Unit :
Examiner :

PRELIMINARY AMENDMENT

Asst. Commissioner for Patents
Washington, D.C. 20231

S I R :

IN THE SPECIFICATION:

Page 1: Please insert the following as the first sentence:

--This application is a U.S. National Phase Application
under 35 USC 371 of International Application PCT/DE01/02308
(not published in English) filed June 22, 2001.--

Please replace the paragraph on page 1, lines 6-10 with the
following:

--Field of the Invention

The invention relates to a halogen lamp for motor vehicle
headlights which has an electrical power consumption of between
50 watts and 100 watts and has at least one incandescent
filament.

Background of the Invention--

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No. 06-1378.

Please replace the paragraph on pages 1a, lines 1-5 to page 2, lines 1 and 2, with the following:

--Summary of the invention

It is an object of the invention to provide a halogen lamp for motor vehicle headlights with a power consumption of between 50 and 100 watts which can be operated on a vehicle supply voltage of 24 volts and ensures homogeneous illumination.--

Please replace the paragraph on page 2, lines 3-6 with the following:

--This object is achieved according to the invention by forming the incandescent filament as a single coil, the dimensions and/or geometry of which are matched to an operating voltage of at least 20 volts. The length of the single coil is in the range from 4.0 mm to 6.5 mm.--

Please replace the paragraph on page 3, line 21 with the following:

--Brief Description of the Drawings--.

On page 3a, before line 7, please insert the following:

--Detailed Description of the Drawings--.

IN THE ABSTRACT

Please replace the entire Abstract on page 7 with the following:

--Abstract of the Disclosure


A halogen lamp for motor vehicle headlights which has an electrical power consumption of between 50 watts and 100 watts and has at least one incandescent filament, the at least one incandescent filament (5) being formed as a single coil, the dimensions and/or geometry of which are matched to an operating voltage of at least 20 volts, and the length of the single coil being restricted to a range from 4.0 mm to 6.5 mm.--

R E M A R K S

In accordance with 37 CFR 1.121(c), marked-up copies of pages 1, 1a, 2, 2a, 3, 3a and 7 of the specification, showing the changes made, are attached.

If the Examiner has any comments, questions, objections or recommendations, the Examiner is invited to telephone the undersigned at the telephone number given below for prompt action.

Respectfully submitted,



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Halogen lamp

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Field of the Invention
The invention relates to a halogen lamp for motor vehicle headlights [according to the preamble of patent claim 1.] which has an electrical power consumption of between 50 watts and 100 watts and has at least one incandescent filament.

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[I. Prior art]

Background of the Invention

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There are commercially available halogen lamps for headlights of motor vehicles with a vehicle supply voltage of 12 volts. These halogen lamps have a power consumption of about 50-100 watts and at least one incandescent filament, the incandescent filament being singly wound and designed for an operating voltage of approximately 12 volts.

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There are also commercially available halogen lamps for headlights of motor vehicles with a vehicle supply voltage of 24 volts. These halogen lamps have a power consumption of between 50 watts and 100 watts and at least one incandescent filament, the incandescent filament being doubly wound and designed for an operating voltage of at least 20 volts. To ensure adequate vibration resistance, the singly wound ends of the doubly wound incandescent filament are provided with insertion pins. Instead of an insertion pin, in each end of the singly wound filament there may remain a residual amount of the core wire which was etched out by means of acid only from the light-emitting, doubly wound region of the incandescent filament, but not out of its singly wound ends. The secondary coil of this doubly wound incandescent filament has only very few turns. The illumination which can be achieved with it has an inhomogeneous effect.

--This application is a U.S. National Phase Application under 35 USC 371 of International Application PCT/DE01/02308 (not published in English) filed June 22, 2001.--

- 1a -

[II.] Summary of the invention

It is ^{an} [the] object of the invention to provide a
halogen lamp for motor vehicle headlights with a power
5 consumption of between 50 watts and 100 watts

- 2 -

which can be operated on a vehicle supply voltage of 24 volts and ensures homogeneous illumination.

This object is achieved according to the invention by [the features of patent claim 1.]
5 [Particularly advantageous embodiments of the invention are described in the subclaims.] *forming the incandescent (X)*

In the case of the halogen lamp according to the invention, the at least one incandescent filament is formed as a single coil, the dimensions and/or
10 geometry of which are matched to an operating voltage of at least 20 volts, the length of the single coil having a value in the range from 4.0 mm to 6.5 mm. By being fitted with the single coil according to the invention and by interacting with the reflector of the
15 motor vehicle headlight, it is possible with the halogen lamp according to the invention to achieve a more homogeneous illumination than with the aforementioned, previously customary halogen lamps. The restriction of the length of the single coil
20 according to the invention to a range from 4.0 mm to 6.5 mm ensures by the interaction with the reflector of the motor vehicle headlight a directed light emission and a well-defined cone of light. The single coil of the halogen lamp according to the invention has three
25 to four times the number of turns and a significantly smaller distance between the individual turns than the secondary coil of the doubly wound incandescent filament of the previously customary halogen lamps for headlights of motor vehicles with a rated vehicle
30 supply voltage of 24 volts. The single coil of the halogen lamp according to the invention is advantageously provided with a least 20 turns, which are evenly distributed over the length of the single coil to achieve illumination which is as homogeneous as
35 possible.

As a difference from the 12 V halogen lamps described above as prior art, the halogen lamp according to the invention has, on account of the higher operating voltage, as the incandescent filament

(X) filament as a single coil, the dimensions and/or geometry of which are matched to an operating voltage of at least 20 volts. The length of the single coil is in the range from 4.0 mm to 6.5 mm.

- 3a -

representation

figure 4 shows a plan view of a single coil according
to a third exemplary embodiment of the
5 invention in a schematic representation.

Detailed Description of the Drawings

The halogen lamp according to the first exemplary
embodiment has an essentially cylindrical lamp vessel 1
with a gastight-sealed pinch

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Abstract of the Disclosure

[Halogen lamp]

[The invention relates to a] ^A halogen lamp for motor vehicle headlights which has an electrical power consumption of between 50 watts and 100 watts and has at least one incandescent filament, the at least one incandescent filament (5) being formed [according to the invention] as a single coil, the dimensions and/or geometry of which are matched to an operating voltage of at least 20 volts, ^{and} the length of the single coil being restricted to a range from 4.0 mm to 6.5 mm.

[Figure 1]